

AMENDMENTS TO THE CLAIMS

This Listing of Claims replaces all prior versions and listings of claims in this application.

Listing of Claims:

1. (Currently amended) An expandable, pelletized styrene polymer material having a bi- or multimodal molecular weight distribution, which, based in each case on the entire styrene polymer content, ~~comprises~~consists essentially of
 - i) from 0.1 to 30% by weight of a styrene copolymer with a weight-average molar mass M_w in the range from 1000 to 20 000 g/mol, and
 - ii) from 99.9 to 70% by weight of standard polystyrene (GPPS) with a weight-average molar mass M_w in the range from 160 000 to 400 000 g/mol.
2. (Previously presented) The expandable, pelletized styrene polymer according to claim 1 wherein the styrene copolymer used comprises a copolymer composed of styrene, acrylic acid and/or α -methylstyrene.
3. (Previously presented) The expandable, pelletized styrene polymer material according to claim 1 which comprises from 3 to 7% by weight of an organic blowing agent.
4. (Currently amended) A process for preparing expandable, pelletized styrene polymer materials ~~according to claim 1~~ having a bi- or multimodal molecular weight distribution, comprising the steps of
 - a) preparing a mixture of styrene polymers which, based in each case on the entire styrene polymer contents comprise
 - i) from 0.1 to 30% by weight of a styrene copolymer with a weight-average molar mass M_w in the range from 1000 to 20 000 g/mol, and
 - ii) from 99.9 to 70% by weight of standard polystyrene (GPPS) with a weight-average molar mass M_w in the range from 160 000 to 400 000 g/mol,

- b) mixing to incorporate an organic blowing agent into the polymer melt by means of a static or dynamic mixer at a temperature of at least 150°C,
- c) cooling the polymer melt comprising blowing agent to a temperature of at least 120°C,
- d) discharge via a die plate with holes whose diameter at the discharge from the die is at most 1.5 mm, and
- e) pelletizing the melt comprising blowing agent directly downstream of the die plate under water at a pressure in the range from 1 to 25 bar.

5. (Previously presented) A process for producing moldable-foam moldings, which comprises, in a first step, using hot air or steam to prefoam expandable, pelletized styrene polymer materials according to claim 1 to give foam beads whose density is in the range from 8 to 100 g/l, and, in a 2nd step, fusing these materials in a closed mold.

6. (Previously presented) The expandable, pelletized styrene polymer material according to claim 2, which comprises from 3 to 7% by weight of an organic blowing agent.

7. (Previously presented) The expandable, pelletized styrene polymer material according to claim 1 wherein the standard polystyrene (GPPS) has a weight-average molar mass M_w in the range from 220 000 to 300 000 g/mol.

8. (New) An expandable, pelletized styrene polymer obtained according to the method of claim 4, wherein the styrene copolymer used comprises a copolymer composed of styrene, acrylic acid and/or α -methylstyrene.

9. (New) An expandable, pelletized styrene polymer material obtained according to the method of claim 4 which comprises from 3 to 7% by weight of an organic blowing agent.

10. (New) An expandable, pelletized styrene polymer material obtained according to the method of claim 4, wherein the standard polystyrene (GPPS) has a weight-average molar mass M_w in the range from 220 000 to 300 000 g/mol.